



**PREVALENCE AND RISK FACTORS OF *Blastocystis* SPP. AMONG ORANG
ASLI SCHOOL CHILDREN IN SEKOLAH KEBANGSAAN PENDERAS,
PAHANG**

By

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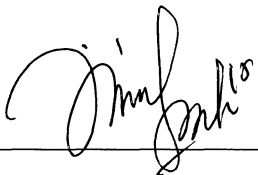
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DECLARATION

I hereby declare that this thesis is my original work and has not been submitted previously or currently for any other degree at UiTM or any other institutions.

Signature:

A handwritten signature in black ink, appearing to read 'Nur Amirah', is written over a horizontal line.

(Nur Amirah bt Hassan)

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ABSTRACT

Blastocystis spp. is a ubiquitous, globally distributed intestinal parasite infecting human especially in children. The prevalence ranges from 30% to 50% in developing countries, while a lower rate exists in developed countries. Several studies have implicated human to human, zoonotic and waterborne transmissions by *Blastocystis* spp. which highlighting fecal-oral as the major route of transmission. *Blastocystis* spp. can cause variety of clinical signs and symptoms including diarrhea, abdominal pain, vomiting and also suspected to be associated to irritable bowel syndrome. Because of its possible impact in public health with controversial pathogenic potential, we reinforced the picture of *Blastocystis* spp. prevalence and its association with other possible risk factors and clinical signs and symptoms among Orang Asli school children in Sekolah Kebangsaan Penderas, Pahang. A cross-sectional study has been conducted in Temerloh, Pahang between March 2014 and July 2015. A total of 89 stool samples involved 47 boys and 42 girls were collected. *Blastocystis* spp. was examined microscopically by using Wheatley's trichrome stain of all stool samples. Demographic and socioeconomic characteristics as well as the clinical signs and symptoms were collected by using pre-tested questionnaire. A Pearson's Chi-square was used to identify the possible risk factors and clinical signs and symptoms for blastocystosis. The overall prevalence rate of *Blastocystis* spp. among Orang Asli school children was 37.1% (33/89). The infection of *Blastocystis* spp. was found higher among boys (40.4%) as compared to girls (33.3%), even though the analysis showed statistically not significant ($p = 0.489$). Likewise, the present findings also documented that those who aged ≥ 11 years have high risk of getting *Blastocystis* spp. infection compared to their counterparts (39.5% vs. 34.8%). The present study found that there was no risk factor that could be associated with blastocystosis. However, drinking untreated water, presence of domestic pets, and low personal hygiene may be suggested as possible risk factors linked to this parasite. No significant different was associated between *Blastocystis* spp. infection and diarrhea ($p = 0.349$) and other gastrointestinal symptoms ($p = 0.992$). Therefore, public health education program need to be organized in order to enhance their personal hygiene and cleanliness. Moreover, screening for *Blastocystis* spp. contamination is suggested as part of water quality assessment. Samples from animal and water should also be collected to disclose this circumstance. More specific and sensitive method such as polymerase chain reaction should be performed in order to identify *Blastocystis* spp. up to subtype level.